

**M.R. 215****RENAULT****AUTOMATIC TRANSMISSION****I.S.**

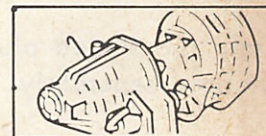
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**2 A**

FEBRUARY 1980  
EDITION ANGLAISE

R.1341

R.1362



Attention: Workshops, Parts Department  
Reception

**CODED OPERATIONS:** These will appear in  
the 1st. Edition of the Renault Fuego T.M.

This I.S. Note contains details of the main specifications and adjusting values for the type 4139-60 and 61 automatic transmissions fitted to R.1341 and R.1342 vehicles.

The basic overhaul of the above automatic transmissions are dealt with in M.R.215.

**SPECIFICATIONS**

Vehicle type	Marking	Final drive	Step-down gears	Speedometer drive
R.1362	4139-61	9/32	37/38	9/20
R.1341	4139-60	9/32	37/38	9/20

**GEAR CHANGING MOMENTS****R.1341**

Foot position	Gear changing speeds (km/h)			
	1↔2		2↔3	
	1↗ <sup>2</sup> 1↘ <sup>2</sup>	2↘ <sup>1</sup> 2↗ <sup>1</sup>	2↗ <sup>3</sup> 2↘ <sup>3</sup>	3↘ <sup>2</sup> 3↗ <sup>2</sup>
PL		13(8)		23(14)
PF	58(36)		99(61½)	
RC	61(38)		102(63)	

**R.1362**

Foot position	Gear changing speeds (km/h)			
	1↔2		2↔3	
	1↗ <sup>2</sup> 1↘ <sup>2</sup>	2↘ <sup>1</sup> 2↗ <sup>1</sup>	2↗ <sup>3</sup> 2↘ <sup>3</sup>	3↘ <sup>2</sup> 3↗ <sup>2</sup>
PL		14(8½)		24(15)
PF	64(40)		110(68)	
RC	67(41½)		115(71)	

PL = Light throttle

PF = Full throttle

RC = Kick-down.

**Gear changing speeds**

The figures shown in the table give the average theoretical moments for gear-changing (chronometer checked speeds).

(miles per hour in brackets)

These values may vary depending on the tolerances existing in the units (governor, computer, and speedometer) and also on the type of tyre fitted.

Sce. 04.22



## WIRING HARNESSSES

R.1341 and R.1362 vehicles are fitted with an automatic transmission harness which has moulded plugs and sockets for making the connections between:

- governor-computer (1)
- multi-function switch (2)
- and the various cables and plugs.

Only the sealed plug and socket may be changed separately.

The design of this harness does not allow any presumed faults in the following to be confirmed:

- governor-computer
- multi-function switch
- cables and plugs.

because only the solenoid valves and kick-down switch may be checked with control boxes B.Vi.454-06, B.Vi.797 or B.Vi.797-01.

An intermediate cable B.Vi.858 is required when using control boxes B.Vi.454-06, B.Vi.797 or B.Vi.797-01 in conjunction with this new harness. This intermediate cable will be connected to the socket on the R.H. side of the converter casing and the new sequence of operations mentioned on page 4 onwards must be strictly followed.

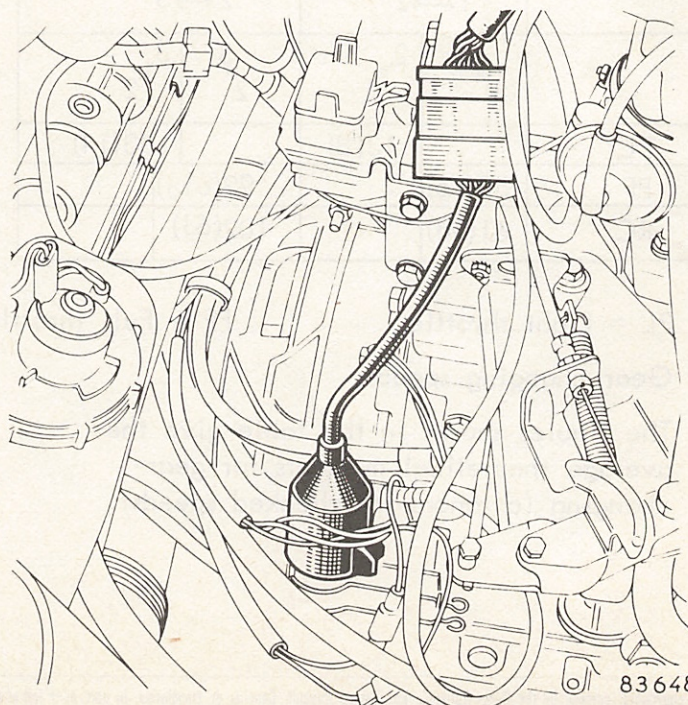
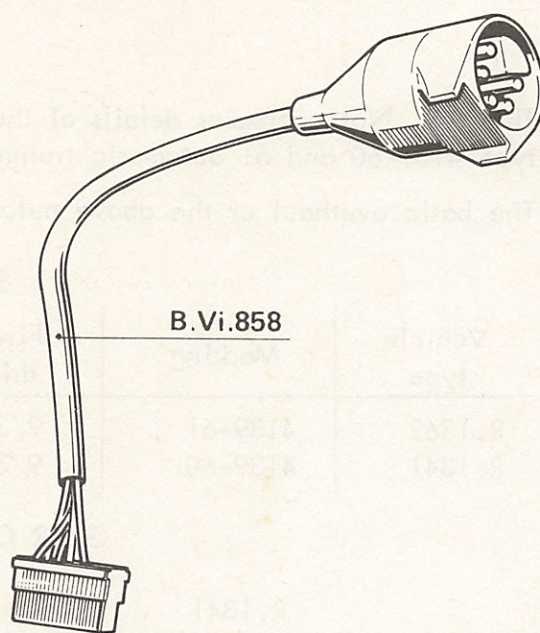
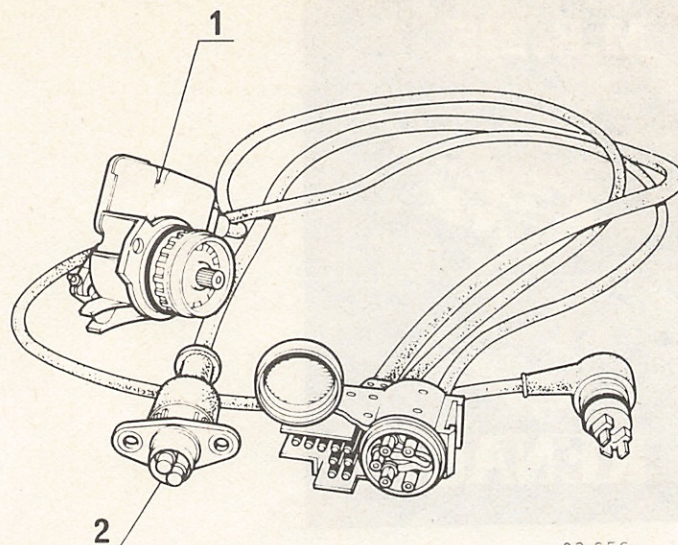
Note the following however:

- 1 - When using control box B.Vi.797-01

The position of the meter needle and governor selector switch have no effect on the checking sequence and the buzzer will not sound.

- 2 - When using control boxes B.Vi.454-06 or B.Vi.797.

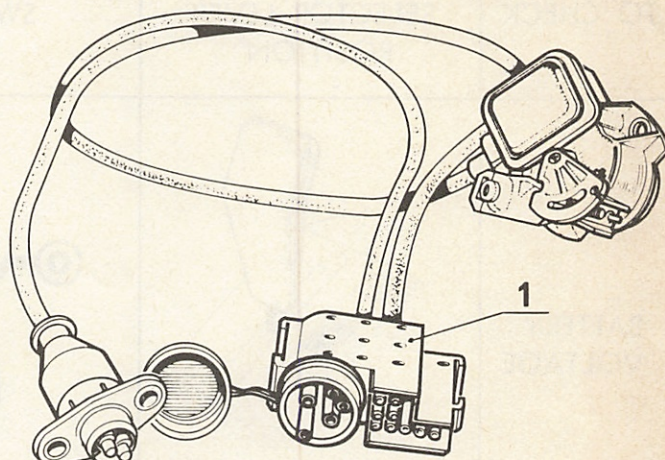
Knob 1 and the buzzer are not used.



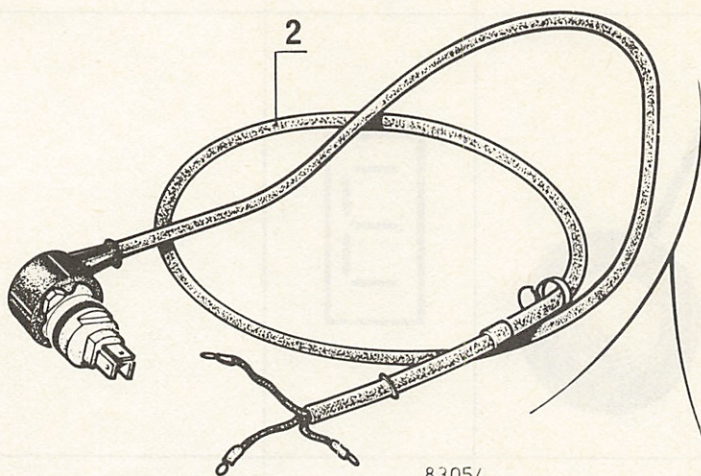


## CHANGING THE HARNESS:

The governor-computer/multi-function switch assembly (1) may be changed on this harness without touching sealed plug (2) and vice versa.



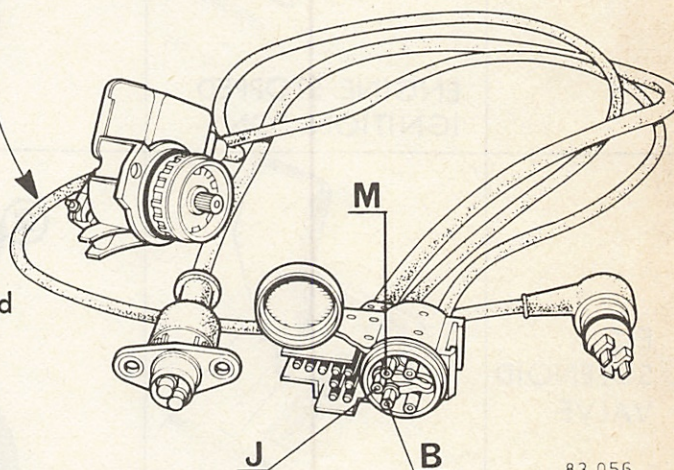
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To carry out the above: mark the 3 solenoid valve wires (M, J and B), remove them from the plug and remove the cable from the sealed plug.

This operation avoids having to remove the sump on the automatic transmission when the solenoid valves or sealed plug are not the cause of the incident.



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### Note:

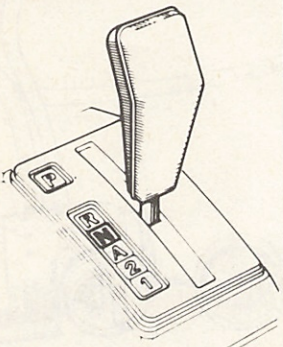
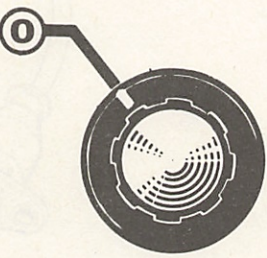
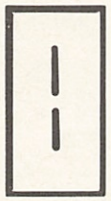
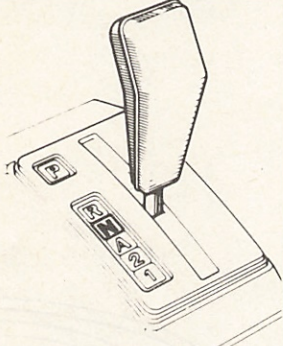
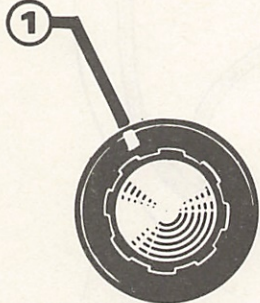

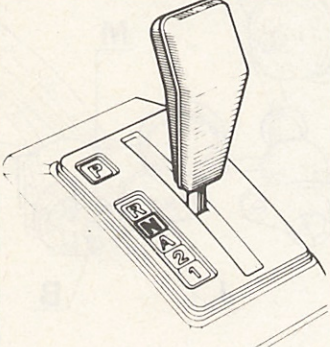
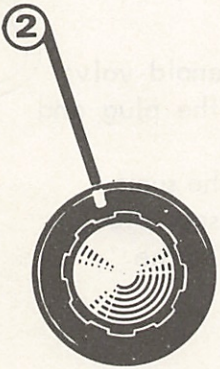

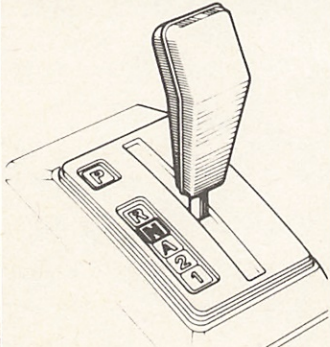
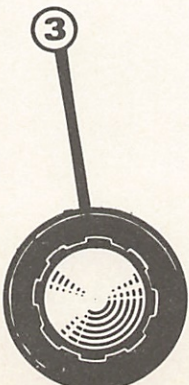

M = Maroon

J = Yellow

B = Blue.



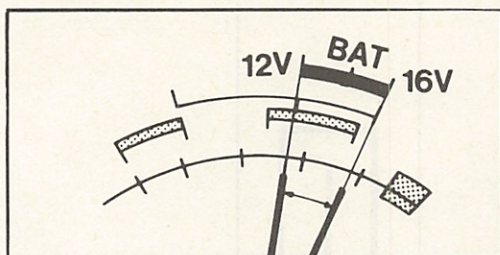
# HOW TO USE CONTROL BOX B.Vi.797-01 IN A STATIC TEST

TO CHECK	SELECTOR LEVER POSITION	SWITCH	DIGITAL DISPLAY	
BATTERY VOLTAGE	 <p>ENGINE STOPPED IGNITION "ON"</p>			
EL1 SOLENOID VALVE	 <p>ENGINE STOPPED IGNITION "ON"</p>			
EL2 SOLENOID VALVE	 <p>ENGINE STOPPED IGNITION "ON"</p>			
CURRENT FEED TO SOLENOID VALVES	 <p>ENGINE STOPPED IGNITION "ON"</p>			



# INFORMATION OBTAINED

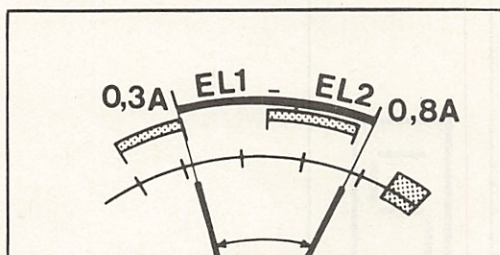
# REMARKS



Incorrect battery voltage may cause the automatic transmission to malfunction.

Note: this test may also be carried out while driving.

If the current is nil, check fuses a, b and c in the fusebox.

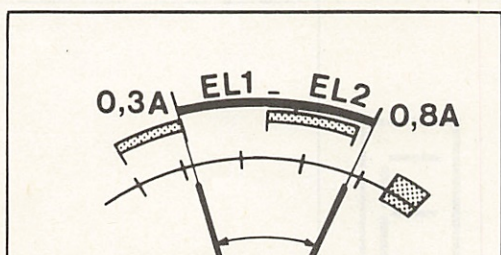


If the current is normal (between 0,3 and 0,8A) the solenoid valve is electrically in order.

If the current is abnormal:

- check wires and terminal blocks,
- if the above are serviceable, then the solenoid valve is faulty.

If the current is nil, check fuses a, b and c in the fusebox.

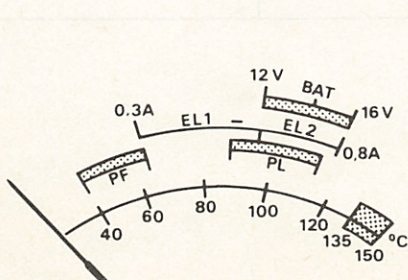


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If the current is nil, check fuses a, b and c in the fusebox.

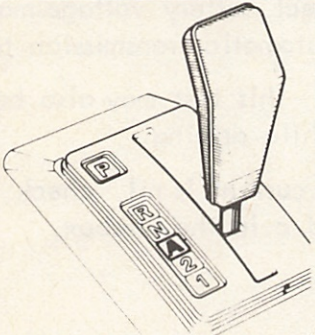
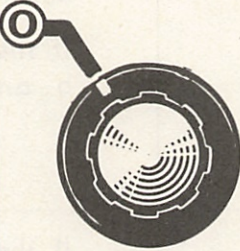
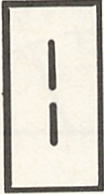
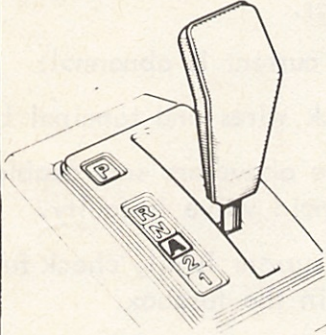
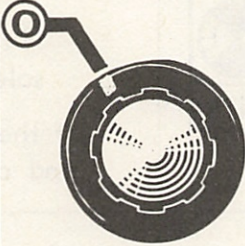

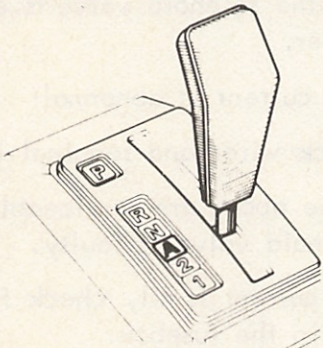




Check the wiring and electrical control units if the current supply to the solenoid valves is incorrect.







The fault is either hydraulic or mechanical if the current supply is correct.



## IN A DYNAMIC TEST

TO CHECK	SELECTOR LEVER POSITION	SWITCH	DIGITAL DISPLAY	
EL1 SOLENOID VALVE	 <p>ENGINE RUNNING VEHICLE ON MOVE</p>			
EL2 SOLENOID VALVE	 <p>ENGINE RUNNING VEHICLE ON MOVE</p>			
CURRENT FEED TO SOLENOID VALVES	 <p>ENGINE RUNNING VEHICLE ON MOVE</p>			

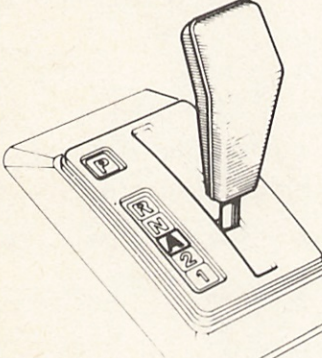
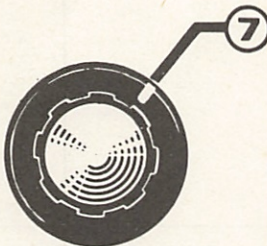
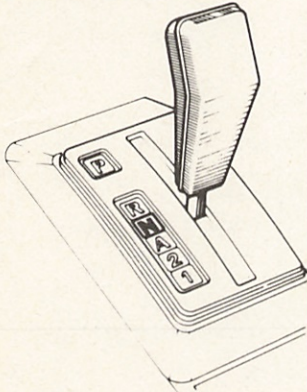
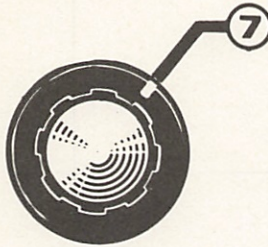


INFORMATION OBTAINED	REMARKS
<div>1°</div> <div><div>EL2</div><div></div><div></div><div>EL1</div></div>	
<div>2°</div> <div><div>EL2</div><div></div><div></div><div>EL1</div></div>	
<div>3°</div> <div><div>EL2</div><div></div><div></div><div>EL1</div></div>	

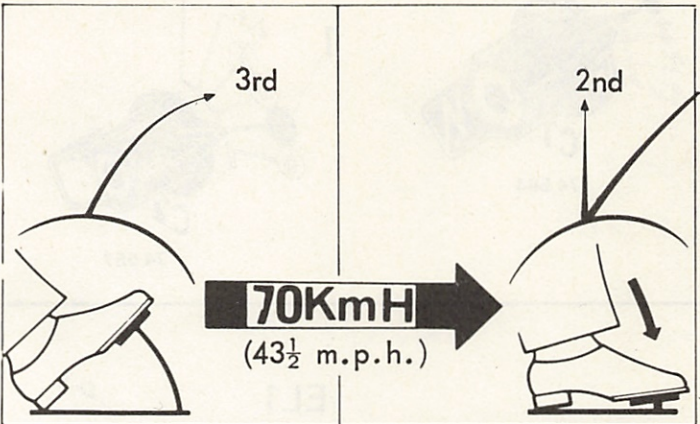
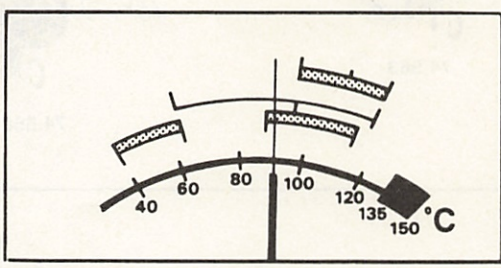
BEFORE SWITCHING TO POSITION 7, REDUCE VEHICLE SPEED TO 35 KM/H (21 MPH)  
AS THE MOVEMENT OF THE SWITCH TO POSITION 1 WILL AUTOMATICALLY SELECT  
"1ST. AUTOMATIC" IN THE TRANSMISSION.



HOW TO USE CONTROL BOX B.Vi.797-01  
IN DYNAMIC TEST

TO CHECK	SELECTOR LEVER POSITION	SWITCH		
KICK-DOWN SWITCH	 <p>ROAD SPEED 70 KM/H (43½ MPH) APPROX.</p>	<p>SEE NOTE ON PREVIOUS PAGE</p> 		
TEMPERATURE				



INFORMATION OBTAINED	REMARKS
	<p>If the kick-down warning light (RC) fails to illuminate check:</p> <ul style="list-style-type: none"> <li>- adjustment of kick-down switch,</li> <li>- the switch itself</li> <li>- or connecting wire.</li> </ul>
	<p>Min oil temperature for tests: 85°C</p> <p>Max. oil temperature for tests: 135°C.</p>



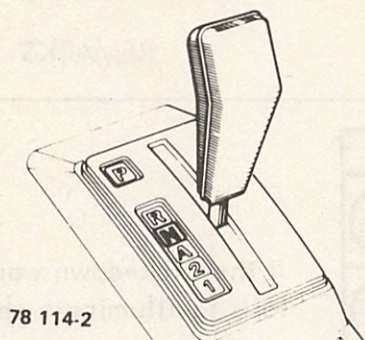
# HOW TO USE CONTROL BOX B.Vi.454-06 or B.Vi.797 IN STATIC TEST

TO CHECK

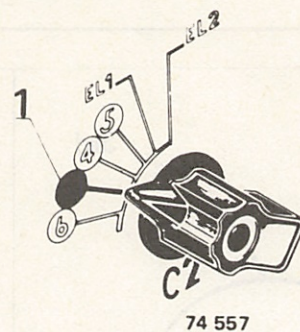
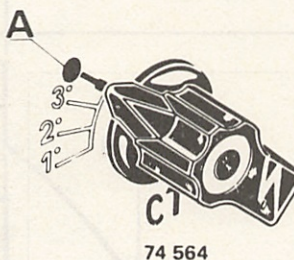
SELECTOR LEVER  
POSITION

C1 and C2 SWITCHES

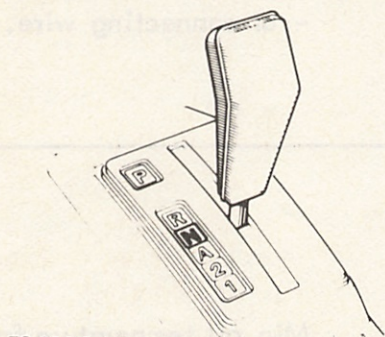
BATTERY  
VOLTAGE



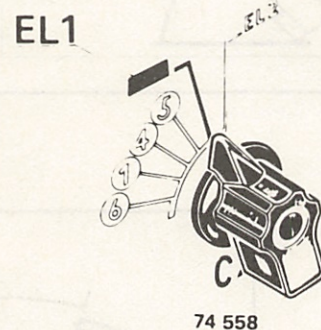
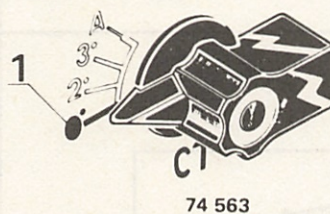
ENGINE SWITCHED OFF  
IGNITION "ON"



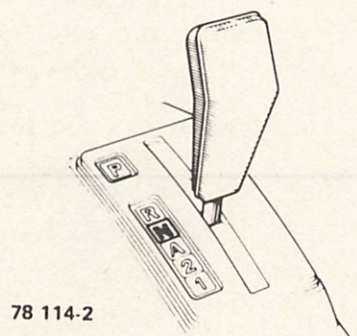
EL1\*  
SOLENOID  
VALVE



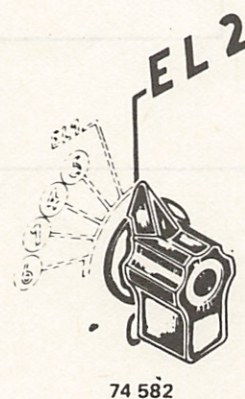
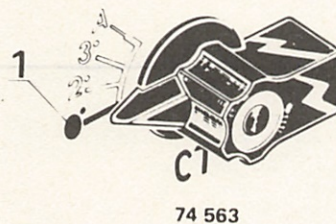
ENGINE SWITCHED OFF  
IGNITION "ON"



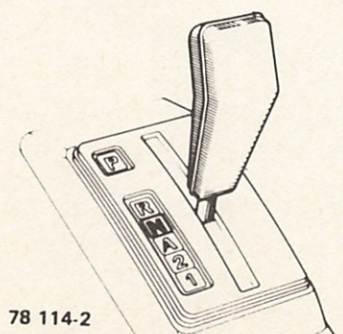
EL2\*  
SOLENOID  
VALVE



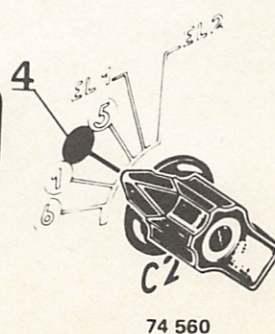
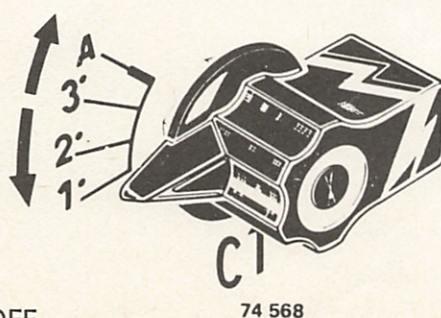
ENGINE SWITCHED OFF  
IGNITION "ON"



FED TO  
SOLENOID  
VALVES



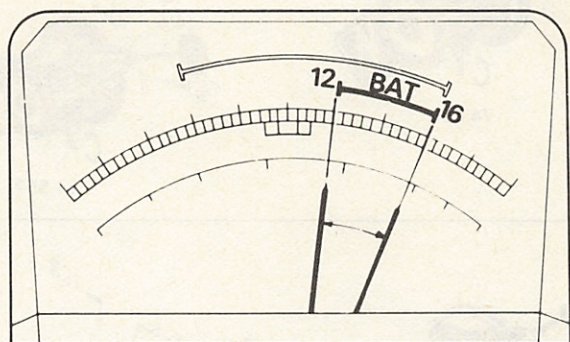
ENGINE SWITCHED OFF  
IGNITION "ON"





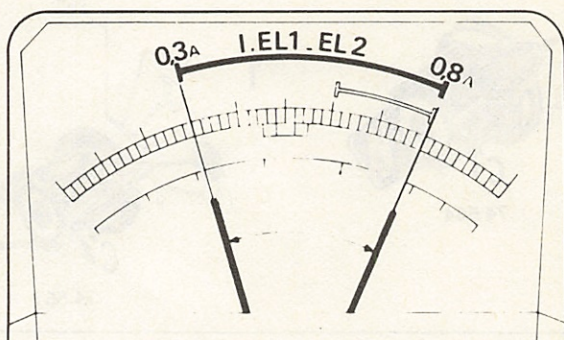
## INFORMATION OBTAINED

## REMARKS



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Incorrect battery voltage (outside 12 to 16 V range) may cause the automatic transmission to malfunction.



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If the current is normal (between 0,3 and 0,8A) the solenoid valves are electrically in order.

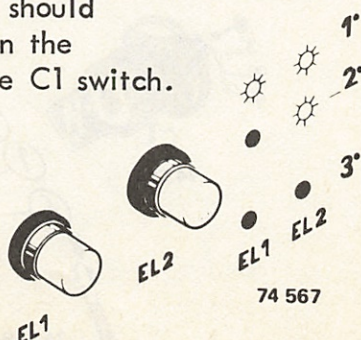
If the current is abnormal:

- check wires and terminal blocks,
- if the above are serviceable, then one of the solenoid valves is faulty.

\* The computer may be suspect if an incorrect value (outside 0,3 to 0,8A range) is displayed when the check is made with switch C1 in "A" (battery voltage being correct).

The blue and white warning lights for the solenoid valves should remain illuminated.

The blue and white warning lights for the solenoid valves should illuminate depending on the selection made with the C1 switch.

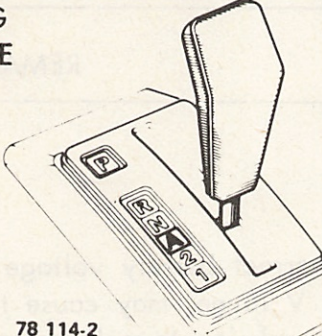
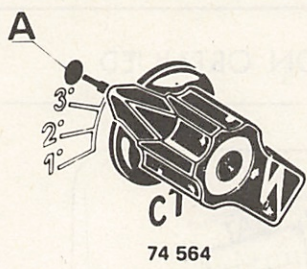
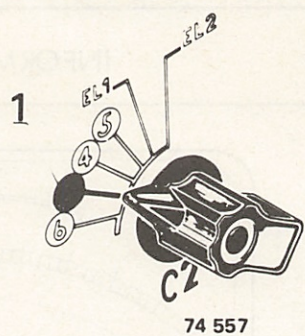
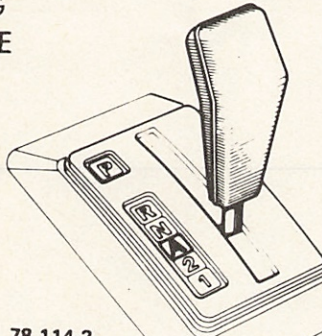
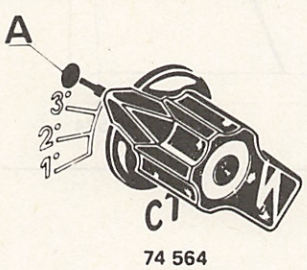
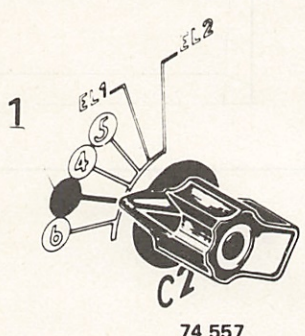
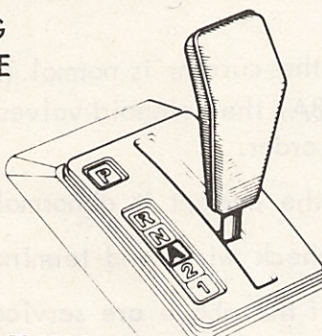
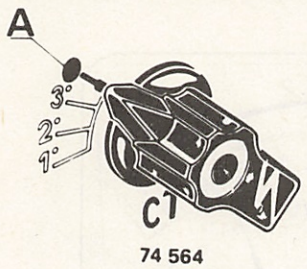
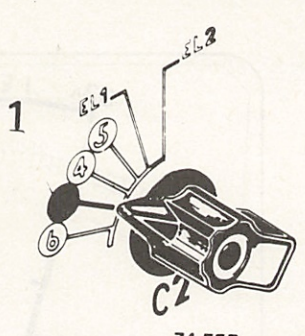
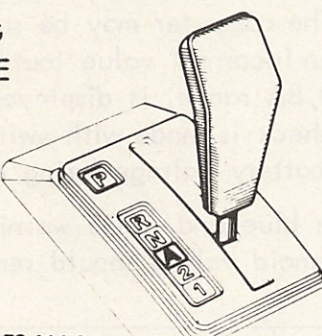
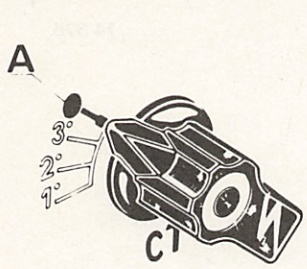
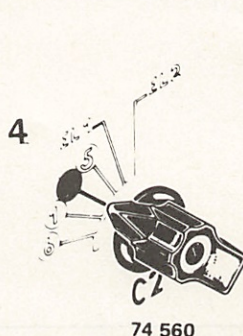
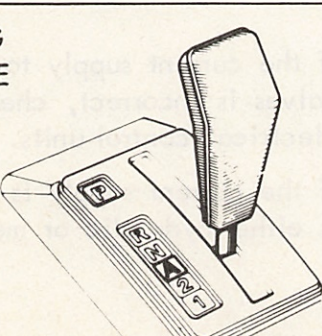
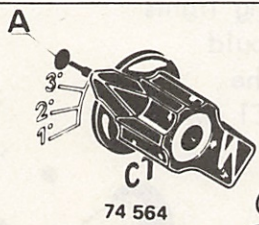
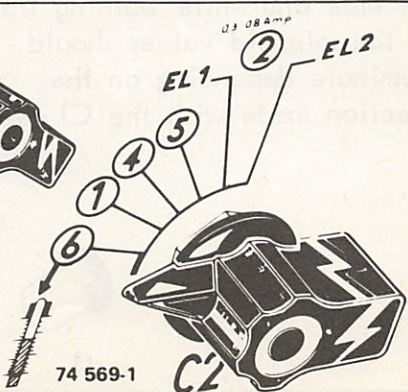


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- If the current supply to the solenoid valves is incorrect, check the wiring and electrical control units.
- If the current supply is correct, the fault is either hydraulic or mechanical.



# HOW TO USE CONTROL BOX B.Vi.454-06 or B.Vi.797 IN DYNAMIC TEST

TO CHECK	SELECTOR LEVER POSITION	SWITCHES C1 and C2
ENGINE RUNNING VEHICLE ON MOVE  EL1 SOLENOID VALVE		 
ENGINE RUNNING VEHICLE ON MOVE  EL2 SOLENOID VALVE		 
ENGINE RUNNING VEHICLE ON MOVE  FEED TO SOLENOID VALVE		 
ENGINE RUNNING VEHICLE ON MOVE  KICK-DOWN SWITCH		 
ENGINE RUNNING VEHICLE ON MOVE  OIL TEMPERATURE		 



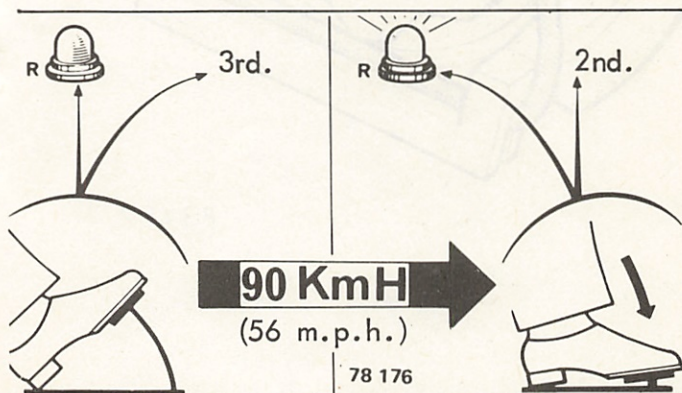
# INFORMATION OBTAINED

# REMARKS

The EL1 and EL2 warning lights in the control box remain illuminated.

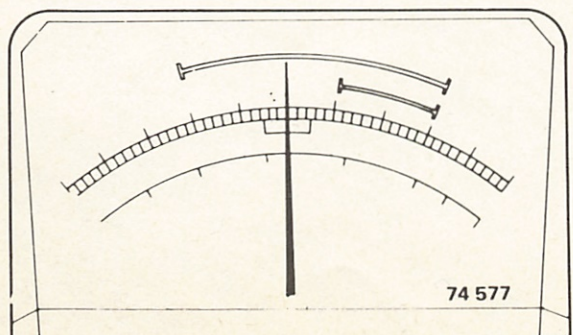
The EL1 warning light in the control box is out, EL2 remains illuminated.

The EL1 and EL2 warning lights in the control box are both out.



If the kick-down warning light (RC) does not illuminate, check:

- the setting of the kick-down switch,
- the switch itself,
- or its connecting wire.



Min. oil temperature for tests = 85°C

Max. oil temperature for tests = 135°C.

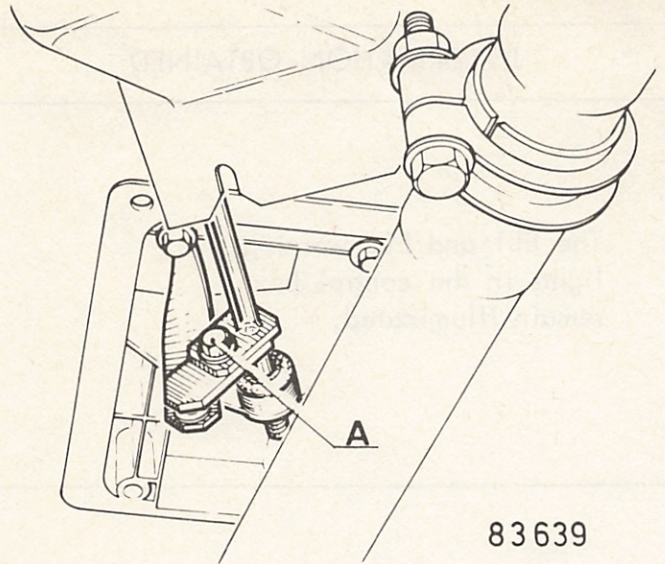


## SELECTOR CONTROL

Move the selector lever and the lever on the automatic transmission to position "N" (neutral).

Torque tighten bolt (A) to 1,7 m. da N ( $12\frac{1}{2}$  lb/ft).

Check that all positions may be selected with ease.



83639

## VACUUM CAPSULE

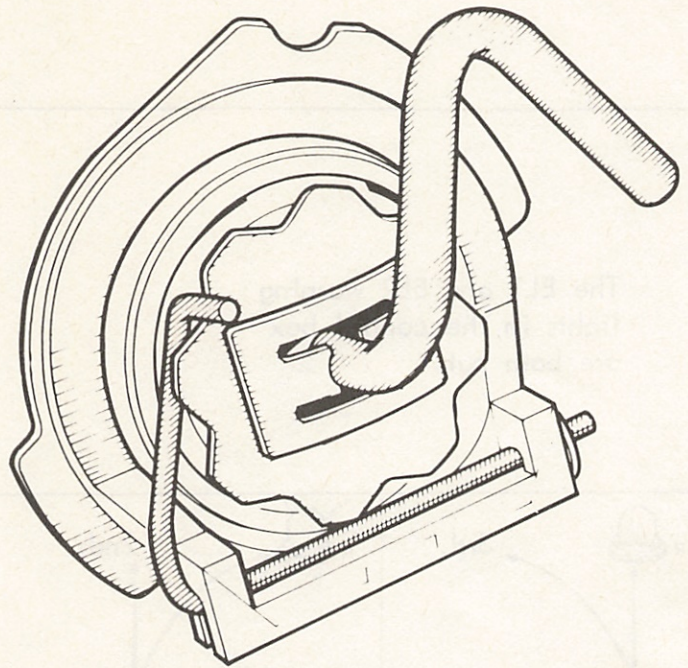
Identification:

The capsule is colour-coded black.

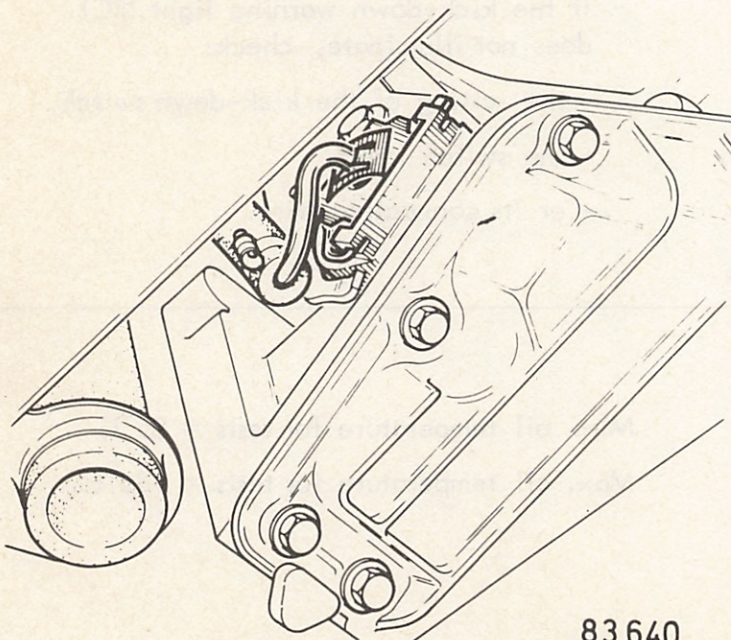
The pressure should be 4,5 bars (64 psi) when changing between 1st. and 2nd. with full throttle.

- 1 notch = 0,1 bar ( $1\frac{1}{2}$  psi).

Screw in the capsule to increase pressure.



83452

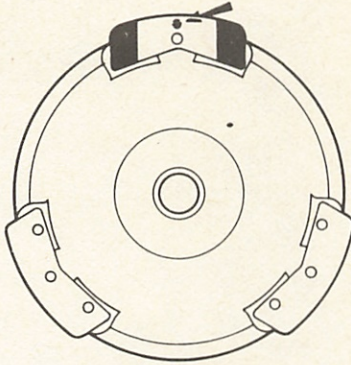


83640

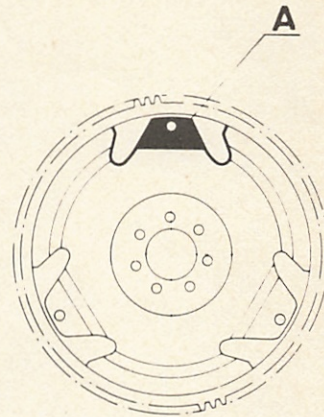


## CONVERTER - DRIVING PLATE

### Identification



82 891



82 854

One of the three driving plate fixing lugs has sharp corners (A) and this is the one used to find T.D.C.

### MECHANISM CASING

Overhaul and adjustments are identical to those for the type 4139-41 automatic transmission fitted to the Renault 5.

### FINAL DRIVE ASSEMBLY

Overhaul and adjustments are identical to those for the type 4139-23 automatic transmission fitted to the Renault 18.